

REMARKS

Claims 9, 26, 31 and 34 have been amended. Claims 9-15, 26, 27, 31, 34, and 49-54 remain in the application for consideration. In view of the following remarks, Applicant respectfully requests reconsideration and allowance of the subject application.

§102 Rejections

Claims 9-10, 12, 14-15, 26-27, 31, 34 and 49-54 stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,421,348 to Gaudet et al. (hereinafter "Gaudet").

§103 Rejections

Claims 11, 13, and 27 stand rejected under 35 U.S.C. §103(a) as being obvious over Gaudet in view of Gunninberg et al., "How a Large ATM MTU Causes Deadlocks in TCP Data Transfers", IEEE/ACM Transactions on Networking, Vol. 3, Issues 4, (1995) (hereinafter "Gunninberg").

The Claims

Claim 9 has been amended, and as amended recites a method for facilitating speedy communication of packets between entities on a network through a communication device, the method comprising (added language appears in bold italics):

- sending a set of packets from a sending entity to a receiving entity, wherein a transmission delay between packets in the set is intolerable;

- immediately thereafter, sending at least one “push” packet to avert a transmission delay between packets in the set, wherein the “push” packet *has a size selected to* force the transmission of the set of packets by the communication device to avoid the transmission delay caused by packet buffering by the communication device on the network.

In making out the rejection of this claim, the Office argues that Gaudet anticipates claim 1. Specifically, the Office argues that Gaudet teaches a method for facilitating speedy communication of packets between entities on a network through a communication device, the method comprising: sending a set of packets from a sending entity to a receiving entity, wherein a transmission delay between packets in the set is intolerable (citing to column 5, lines 7-29); immediately thereafter, sending at least one “push” packet to avert a transmission delay between packets in the set, wherein the “push” packet is specifically configured to force the transmission of the set of packets by the communication device to avoid the transmission delay caused by packet buffering by the communication device on the network. (citing to column 5, lines 30-43)

In the Office Action, in response to Applicant’s argument that Gaudet does not teach or any way suggest a “push packet” that is specifically configured to force the transmission of the set of packets by the communication device to avoid the transmission delay, the Office states:

In response, Gaudet teaches a method and system for transmitting packets on a network where a packet forces the transmission of the buffered packets on a server. The last packet received in the buffer “push packet” forces the buffer to forward the received cells to a broadcast buffer to be transmitted over the network.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the

1 prior art. *If the prior art structure is capable of performing the intended*
2 *use, then it meets the claim.*

3 Applicant has amended claim 9 to recite that the “push” packet *has a size*
4 *selected to force the transmission* of the set of packets by the communication
5 device to avoid the transmission delay. This amendment patentably distinguishes
6 the claimed subject matter from Gaudet because it recites a specific structural
7 element of the push packet (has a size selected) which is different than Gaudet (size
8 is not selected) and which is utilized to perform a specific use (force transmission of
9 the set of packets to avoid the transmission delay).

10 This amendment is also consistent with Applicant’s specification which
11 teaches that “in order to address the Nagle Algorithm at a proxy, a *large third*
12 *packet* is sent after the *pair of measurement packets*. If the proxy is holding the
13 second packet of the packet-pair, the *third packet pushes it along*. Hence, this
14 third packet is called the “*push*” packet.” (Applicant’s Specification, pages 27-
15 28).

16 Gaudet does not teach or in any way suggest a “push” packet that *has a size*
17 *selected to force the transmission* of the set of packets by the communication
18 device.

19 Accordingly, for at least this reason, this claim is allowable.

20 **Claims 10-15 and 49-51** depend from claim 9 and are allowable as
21 depending from an allowable base claim. These claims are also allowable for their
22 own recited features which, in combination with those recited in claim 9, are
23 neither shown nor suggested by Gaudet or any of the references of record, either
24 singly or in combination with one another. In addition, to the extent that claim 9 is
25

allowable, the rejection of claims 11 and 13 over the combination with Gunninberg is not seen to add anything of significance.

Claim 26 has been amended, and as amended recites a method for facilitating bandwidth measurement between two entities on a network through a communication device, the method comprising (added language appears in the bold italics):

- sending a pair of bandwidth-measurement packets from a sending entity to a receiving entity, wherein a transmission delay between packets in the pair is intolerable;
- immediately thereafter, sending at least one “push” packet to avert a transmission delay between packets in the pair, wherein the “push” packet *has a size selected* to force the transmission of the set of packets by the communication device to avoid the transmission delay caused by packet buffering by the communication device on the network.

In making out the rejection of this claim, the Office uses essentially the same argument that was used to make out the rejection of claim 1. Claim 26 has been amended in a manner consistent with the amendment of claim 1. Specifically, claim 26 has been amended to recite wherein the “push” packet *has a size selected* to force the transmission of the set of packets by the communication device to avoid the transmission delay. As discussed with regards to claim 1, Gaudet does not teach or in any way suggest wherein the “push” packet *has a size selected* to force the transmission of the set of packets by the communication device to avoid the transmission delay.

Accordingly, for the same reasons as discussed with regards to claim 1, this claim is allowable.

1 **Claims 27 and 52-54** depend from claim 26 and are allowable as
2 depending from an allowable base claim. These claims are also allowable for their
3 own recited features which, in combination with those recited in claim 26, are
4 neither shown nor suggested by Gaudet or any of the references of record, either
5 singly or in combination with one another. In addition, to the extent that claim 26
6 is allowable, the rejection of claim 27 over the combination with Gunninberg is
7 not seen to add anything of significance.

8 **Claim 31** has been amended, and as amended recites a computer-readable
9 medium having computer-executable instructions that, when executed by a
10 computer, perform a method to facilitate speedy communication of packets
11 between entities on a network through a communication device, the method
12 comprising (added language appears in bold italics):

- 13 • sending a set of packets from a sending entity to a receiving entity,
14 wherein a transmission delay between packets in the set is intolerable;
- 15 • immediately thereafter, sending at least one “push” packet to avert a
16 transmission delay between packets in the set, wherein the “push”
17 packet ***has a size selected*** to force the transmission of the set of packets
18 by the communication device to avoid the transmission delay caused by
19 packet buffering by the communication device on the network.

20 In making out the rejection of this claim, the Office uses essentially the
21 same argument that was used to make out the rejection of claim 1. Claim 31 has
22 been amended in a manner consistent with the amendment of claim 1. Specifically,
23 claim 31 has been amended to recite wherein the “push” packet ***has a size selected***
24 to force the transmission of the set of packets by the communication device to
25 avoid the transmission delay. As discussed with regards to claim 1, Gaudet does
not teach or in any way suggest wherein the “push” packet ***has a size selected*** to

1 force the transmission of the set of packets by the communication device to avoid
2 the transmission delay.

3 Accordingly, for the same reasons as discussed with regards to claim 1,
4 this claim is allowable.

5 **Claim 34** has been amended, and as amended recites an apparatus
6 comprising (added language appears in bold italics):

- 7 • a processor;
- 8 • a transmission-delay avoider executable on the processor to:
 - 9 ○ send a set of packets from a sending entity to a receiving entity
10 through a communication device, wherein a transmission delay
11 between packets in the set is intolerable;
 - 12 ○ immediately thereafter, send at least one “push” packet to avert a
13 transmission delay between packets in the set, wherein the
14 “push” packet ***has a size selected*** to force the transmission of the
15 set of packets by the communication device to avoid the
16 transmission delay caused by packet buffering by the
17 communication device on the network.

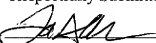
18 In making out the rejection of this claim, the Office uses essentially the
19 same argument that was used to make out the rejection of claim 1. Claim 34 has
20 been amended in a manner consistent with the amendment of claim 1. Specifically,
21 claim 34 has been amended to recite wherein the “push” packet ***has a size selected***
22 to force the transmission of the set of packets by the communication device to
23 avoid the transmission delay. As discussed with regards to claim 1, Gaudet does
24 not teach or in any way suggest wherein the “push” packet ***has a size selected*** to
25 force the transmission of the set of packets by the communication device to avoid
the transmission delay.

Accordingly, for the same reasons as discussed with regards to claim 1,
this claim is allowable.

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2 **Conclusion**

3 All of the claims are in condition for allowance. Accordingly, Applicant
4 requests a Notice of Allowability be issued forthwith. If the Office's next
5 anticipated action is to be anything other than issuance of a Notice of Allowability,
6 Applicant respectfully requests a telephone call for the purpose of scheduling an
7 interview.
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